

northern parts of its range. Probably also breeds in southern Mexico, as I have an adult ♀ taken at Jalapa April 15, 1897, by Mr. C. B. Isham.¹

Cistothorus marianæ Scott. Salt marshes of western Florida, non-migratory.

Cistothorus griseus Brewster. Salt marshes of Atlantic coast, from South Carolina to Matanzas Inlet, Fla., non-migratory.

SICKLE-BILLED CURLEW.

BY C. W. WICKERSHAM.

THE NAME Curlew, or Curlieu, is applied to this genus as an imitation of its long, short-ending call note and originates with the French, whence the second name mentioned above. Species of Curlew are met with all over the known world, but none, except, perhaps, the Australian Curlew, can vie with our Sickle-bill either in size, shyness or cunning.

The Sickle-billed Curlew (*Numenius longirostris*) is found in almost every part of North America but it is only in the west and extreme south that it is met with in considerable numbers; the southwest in winter and the northwest in summer. On our Atlantic seaboard it is famous for its littoral habits, nesting in the Carolinas, Georgia and Florida, on the beaches and keys, spending his days probing the sand, wet from the retreating tide, for his food and generally supplementing the proof furnished by his long curved bill that he belongs, body and soul, to the shore birds.

But in the interior he leads quite a different life; for here we

¹The occurrence of this species at Jalapa is recorded by Mr. F. M. Chapman (Bull. Amer. Mus. Nat. Hist., X, 1898, p. 23) as follows: "On the outskirts of Jalapa there is a small marsh grown with high grasses and reeds, in which there were about a dozen individuals of this bird, which has apparently not before been recorded from Mexico. The three specimens secured are evidently to be referred to the interior form of Long-billed Marsh Wren recently distinguished by Mr. H. C. Oberholser under the above name [*Cistothorus palustris flesius*]. They were females, and on dissection the ovaries showed no signs of enlargement."

find him living on open prairie land, often far from water, nesting on the uplands, stalking along over the dry prairie, sometimes bobbing up and down like a sandpiper, at others sinking his long bill, with its tender ends into the ground, first on this side and then on the other, as he draws worm after worm out of its home to sustain life in his graceful body. As evening falls he becomes restless, his hunting comes to an end, his bobbing becomes more jerky and more and more repeated, until with a loud whistle he jumps forward, his long wings fly out and up and with the first unsteadiness over he joins the bunch in a long line and betakes his way with the others towards some distant marsh or pond. On, on they go; the leader whistles, the others answer, suddenly they all drop, sweep forward and up a little and then, with wings almost meeting above them and legs held daintily down to break the shock, they all alight. For five minutes there is no movement, no sound; there are no birds to be seen where, a moment before, the graceful creatures had alighted; suddenly there is a little flutter of wings and before you know it numerous forms have run forward and bent over the water to noisily quench their thirst. For another five minutes there is as great a confusion and clamor as formerly there was order and quiet; wings are fluttering, hoarse, short cries are arising, feet are pattering up and down, the water is heavily rippling from the motion of many bills and, in a word, all is chaos. One by one the drinkers cease, calmness is gradually restored, and, after pluming themselves, the birds draw one leg up under them, tuck their head under one wing, neatly fold the other, and sweet slumber reigns.

In the interior they begin to go north in May or the latter part of April and household cares take up the month of June from Arizona and Kansas north to Manitoba. July is spent in raising the chicks and by the middle or latter part of August, all is ready for the flight south to Texas, Mexico, Florida and the West Indies. Then it is that we see them in great flocks of hundreds, bobbing up and down all over the prairie, more nervous than ever; and then it is that they are least wary at times and at other times so very wary that it is impossible to approach them. They are so nervous and upset that they do not seem to know their own mind and it is at that season of the year that their antics become almost

as ridiculous as they are just before the breeding season. The day comes when you stroll out to take notes on the birds that you have seen by the hundreds the day before only to find that they have disappeared; not a bird answers your call, no hoarse screaming betokens your approach; they have gone, gone far away in long V-like squadrons and, unless you follow them to their winter home in the south land, you will not see their familiar forms for many months.

After reaching its winter home, the Curlew undergoes little change of habits except in his relation to other birds. For a few days the big bunches stay together and then they begin to separate into small bunches of from two to twenty birds. It is rarely that a single one is seen entirely by himself but two or three feeding together and then, perhaps a mile off, two or three more and in this way scattered all over the pastures and prairies is the way we find them in Texas. They are rarely found in the brush or even in ponds or swales surrounded by the brush, but far out on the open prairie or in little mud flats on the larger swales we rarely miss them. Here they feed all day looking for almost any form of insectivorous or crustacean life. Crawfish, small crabs, snails, periwinkles, toads, worms, larvæ, grasshoppers, crickets, beetles, caterpillars when found on the ground, spiders, flies, butterflies and berries, especially dewberries, all play minor or major parts in their diet. The worms, larvæ, etc., are pulled out of the ground by the long bill, the end of which may act as a finger having separate muscles to control it, and often it is sunk into the ground as far as it will go to reach some unwilling victim. The crustaceans are taken on the beach, or, discovered beneath the surface by the probing bill, are pulled out and eaten. The berries are neatly picked off the bushes, while butterflies and other insects are taken on the wing. At night the birds collect and make for the nearest large body of water where they spend the hours of darkness; but the return is made before light except on dark cloudy mornings when they have to wait for dawn to show them the way. On the wing they are easily distinguished by their snipe-like flight, their long, curved bill and their peculiar motion of beating wings which is so impossible to describe to those who have not seen it.

Wherever the Curlew goes, its long, curious bill makes it so

conspicuous that it is hunted much, but the embryo hunters have found, much to their chagrin, that it is next door to impossible to stalk the wary bird. Despite this, the Curlew decoys readily and is often 'whistled down' by an imitation of his call. Wound one and his yelping will attract every other Sickle-bill within hearing distance, and they will circle and return time and again until the last one is killed.

The nest is a mere depression in the ground, sometimes with a small lining of dead grass, in which are placed three or four ashy clay-colored eggs, covered with a few brown or chocolate spots and blotches. In the Northwest the nest may often be found under or at the foot of a sage bush but more often it is right out on the open prairie where both birds, male and female, help in the task of incubation and upbringing.

BIRDS OF PORTO RICO.

BY B. S. BOWDISH.

WHEN, in 1898, I began to study the birds of Porto Rico, I was somewhat surprised to find how meagre was the literature on the subject. Later, as my work slowly progressed, I felt a growing desire to add at least a little to the general fund of knowledge respecting Porto Rican ornithology, and to this end I have decided to submit the following notes, based on my own observations, extending from February 22, 1899, to February 16, 1900, and from May 5, 1900, to October 24, 1901. During most of this time—from February 22, 1899, to July 1, 1901—I was in the army and my opportunities for ornithological work were limited by military duties. Later, while I was collecting specimens for the National Museum, my opportunities for observation were somewhat better, but even during this period of my stay in Porto Rico, observation was necessarily somewhat of a secondary matter.